

Preliminary - For Review Only

SHIP: _____ ITEM NO: 992-
COAR: _____ PCN: _____
SWI FILE NO: 992-31 CMP: _____
REVISED: 29 JUN 2004

1. SCOPE:

1.1 Title: Cleaning and Pumping; accomplish

1.2 Location of Work:

1.2.1 _____ (*1)

1.2.2 _____ (*2)

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 MIL-STD 777, Schedule of Piping, Valves, Fittings, and Associated Piping Components for Naval Surface Ships

2.3 802-5959353 Rev (*3), MIL-STD-777 Modified for DDG-51 Class, Schedule of Piping, Valves, Fittings, and Associated Piping Components

2.4 S9086-T8-STM-010/CH-593, Pollution Control

2.5 S9086-SP-STM-010/CH-542, Gasoline and JP-5 Fuel Systems

2.6 MIL-HDBK-291, Military Handbook Cargo Tank Cleaning

3. REQUIREMENTS:

3.1 Open, ventilate, empty, clean, render dry, and maintain any tank or space including adjacent tanks, spaces, or piping systems where the scope of repairs will result in a need for certification during the performance of this Job Order.

3.1.1 Tanks/spaces listed in 1.2._ through 1.2._ are to support inspections by Government inspectors.

3.1.2 Ensure that harmful vapors, fumes, and mists are ventilated to the exterior of the vessel.

Preliminary - For Review Only

SHIP: _____

3.1.3 Submit one legible copy, in hard copy or electronic media, of a report listing the location, origin, and quantity of each manhole cover removed in 3.1 in respect to its tank, ship's frame, and distance off centerline to the SUPERVISOR.

3.1.4 Install expandable plugs or blanks, painted blaze orange, in associated tank piping at the first valve or flange. Associated piping is defined as, "An assembly of pipe, tubing, valves, fittings and related components forming a whole or a part of a system which starts or terminates in subject area, thus being common to and associated with same."

3.1.4.1 Submit one legible copy, in hard copy or electronic media, of a report listing the location of each expandable plug and blank to the SUPERVISOR.

3.1.4.2 Remove each expandable plug or blank upon completion of repairs and testing, and install new gaskets and fasteners in accordance with applicable Categories and Group of 2.2 or 2.3.

3.1.5 Clean and disinfect each CHT/sewage tank and associated piping in accordance with 2.4.

3.1.5.1 Maintain one system for Ship's Force use at all times.

3.1.6 Clean each tank and any associated piping in accordance with 2.5 and 2.6.

3.2 Steam clean each area where the removal of preservative is required.

3.2.1 Install new rust preventative compound conforming to MIL-PRF-16173, Grade One.

3.2.2 Install new Monel fill and drain plugs conforming to QQ-N-281, Class B, to replace those removed to accomplish steam cleaning.

3.3 Pump tanks containing petroleum products to the low suction level of each tank.

3.3.1 Products shall be run through a flow meter calibrated in gallons.

3.3.2 Off-loading/on-loading of petroleum products shall be accomplished during daylight hours only.

3.3.3 Hoses, pumps, and storage containers shall be clean and dry prior to start of off-loading/on-loading.

3.3.4 Submit one legible copy, in hard copy or electronic media, of completed Attachment A (products inventory) to the SUPERVISOR.

Preliminary - For Review Only

SHIP: _____

3.3.5 Remove and dispose of liquids not being stored for reuse, including compensating sea water from the compensating fuel tanks, sludge, and debris in accordance with federal, state, and local laws, codes, ordinances, and regulations.

3.3.5.1 Fill the compensating fuel tanks with sea water upon completion of work.

3.4 Take samples of petroleum products from each tank prior to removal from ship and storage.

3.4.1 Accomplish analysis of petroleum products two working days prior to off-loading.

3.4.2 Accomplish a chemical analysis of each sample of distillate fuel and JP-5.

3.4.2.1 Test each sample for flashpoint, using the PENSKY-MARTENS method. The flashpoint should be in the range specified by 2.5.

3.4.2.2 Measure and record the API Gravity at 60 degrees Fahrenheit.

3.4.2.3 Check the bottom sediment and water, using a centrifuge. For distillate fuel, sediment and water should be less than 0.1 percent. For JP-5, sediment shall not be greater than 8 milligrams per liter and there should be no visible traces of water.

3.4.2.4 Measure the acid number. The acid number shall be within five percent of the original value upon return to ship.

3.4.2.5 Submit one legible copy, in hard copy or electronic media, of results of the analysis of 3.4.2 to the SUPERVISOR.

(V) (G) "VERIFY OFF LOAD COORDINATION"

3.5 Coordinate the off loading or transferring of fluids through the ship's Damage Control Assistant (DCA), via the SUPERVISOR, to maintain ship's stability and to prevent flooding.

3.5.1 Obtain a list from the SUPERVISOR of petroleum soundings for tanks prior to start of pumping operations.

(V) (G) "VERIFY CLEAN CONTAINER"

3.5.2 Off-load and store petroleum in the following amounts:

3.5.2.1 Distillate fuel _____ (*4) _____ gallons

3.5.2.2 JP-5 _____ (*4) _____ gallons

Preliminary - For Review Only

SHIP: _____

3.5.2.3 Lubricating oil _____ (*4) _____ gallons

3.6 Off-load and store or off-load and transport to the nearest Naval Fuel Depot (NFD), at the discretion of the contractor based upon cost effectiveness, the distillate fuel and JP-5.

3.6.1 Notify the SUPERVISOR prior to transporting the off-loaded petroleum products.

3.6.2 Deliver to the nearest NFD when directed by the SUPERVISOR. Conveyance will be accepted from 0730 to 1600, Monday through Friday, holidays excluded. The NFD will accomplish a petroleum analysis requiring a time duration of one hour prior to off-loading each conveyance.

3.6.3 Notify the NFD Director a minimum of five working days prior to delivering the off-loaded petroleum products, via the SUPERVISOR.

3.6.4 Submit one legible copy, in hard copy or electronic media, of completed Attachment A, signed by the NFD Director, listing the amount and type of petroleum products received, to the SUPERVISOR within 24 hours after disposition.

3.6.5 Distillate fuel and JP-5 fuel off-loaded and stored by the contractor shall be sampled and analyzed in accordance with 3.4.1 through 3.4.2.4 prior to on-loading.

3.6.5.1 Submit one legible copy, in hard copy or electronic media, of each analysis to the SUPERVISOR prior to on-load.

3.6.6 Provide ship with same type, grade, and quantity of distillate fuel and JP-5 off-loaded and stored, when directed by the SUPERVISOR.

3.7 Off-load and store in clean storage containers the lube oil and hydraulic oil from the tanks. On-load when directed by the SUPERVISOR.

3.7.1 Accomplish the requirements of 009-63 of 2.1.

3.7.1.1 Test and analyze samples from each tank prior to off-loading.

3.7.1.2 Test and analyze samples from each storage container prior to on-loading.

3.8 Clean each bilge of spaces listed in 1.2 free of trash, debris, grease, oily liquids, and other liquid contaminants prior to the initial certification.

3.8.1 Maintain each bilge to a clean, dry condition for the duration of the availability on a 7-day-a-week, 24-hour-a-day basis.

Preliminary - For Review Only

SHIP: _____

3.8.2 Remove and dispose of an additional ____ (*4) ____ gallons of non-hazardous liquids from bilges listed in 1.2, generated by the Navy, after initial cleaning and certification is obtained. Removals shall be measured. Total amount of liquids removed greater or less than the above amount shall be the subject of an equitable adjustment.

(V) (G) "SOURCE DETERMINATION"

3.8.2.1 Submit one legible copy, in hard copy or electronic media, of a report listing the amount of gallons removed in 3.8.2, responsible source of liquids, and date liquids were removed after each pumping operation.

3.8.3 Remove and install pumping equipment three evolutions after space turnover to support the requirements of 3.8.1 and 3.8.2.

(V) (G) "CLEAN AND DRY BILGES"

3.8.4 Prior to space turnover, when directed by the SUPERVISOR, accomplish a final detergent cleaning of each bilge of spaces listed in 1.2, removing all trash, debris, grease, oily liquids, and other liquid contaminants from the bilges.

3.8.5 Accomplish a chemical analysis of liquid waste, sludge, and debris in accordance with applicable federal, state, and local laws, codes, ordinances, regulations, and Naval Facility requirements.

3.8.5.1 One chemical analysis is required for each containment (Engine Room, Space, etc.) or for each type of liquid (fuel oil, JP-5, etc.).

3.8.5.2 Submit one legible copy, in hard copy or electronic media, of each analysis to the SUPERVISOR. Also identify the volume of the liquid from which each sample was taken.

3.9 Clean each chain locker free of silt, mud, and foreign matter.

3.10 Dispose of liquids in accordance with federal, state, and local laws, codes, ordinances, or regulations.

3.11 Tank Closure Repairs:

3.11.1 Clean, chase, or tap threaded areas prior to installing covers.

3.11.2 Weld up, drill, and tap a total of ____ (*5) ____ stripped manhole cover bolting ring holes for tanks opened in 3.1.

3.11.3 Remove existing and install new a total of ____ (*5) ____ missing or broken manhole cover studs for tanks opened in 3.1 conforming to MIL-DTL-1222, Type IV, Grade 304.

Preliminary - For Review Only

SHIP: _____

3.11.4 Accomplish the requirements of 009-12 of 2.1, including Table
____ (*6) ____, Column ____ (*6) ____, Lines One through ____ (*6) ____.

3.11.5 Accomplish the requirements of 009-32 of 2.1 for new and
disturbed surfaces.

(V) (G) "INSPECT TANK CLEANLINESS"

3.12 Inspect each tank for cleanliness prior to final closing.

3.12.1 Submit one legible copy, in hard copy or electronic media, of
a report listing the names of personnel present during inspection to the
SUPERVISOR within 72 hours after completion of final closing.

3.12.2 Install manhole cover for each tank, using new gaskets
conforming to SAE-AMS-C-6183, Class One, new CRES washers conforming to FF-W-
92, Type A, Grade One, Class B, and new brass nuts conforming to MIL-DTL-1222,
Type One, Grade 464, and/or CRES hex head cap screws conforming to ASTM A307.

3.12.2.1 Install new gaskets conforming to ASTM D2000-75E, new
hex nuts conforming to ASTM A307, and new hex head cap screws conforming to
ASTM A307 for DDG-51 Class ships' sewage tanks.

3.12.2.2 Install new gaskets conforming to A-A-55759, Class
3A, Grade 30, and new hex head brass nuts conforming to MIL-DTL-1222, Type I,
for DDG-51 Class ships' high temperature compartments.

3.12.2.3 Install new hex head, self-locking nuts (nickel-
copper) conforming to NASM-25027 for LSD-41 and LSD-49 Class ships.

3.12.2.4 Install new cotton wax wicking to studs prior to
installing washers and nuts for DDG-51 Class ships.

**3.12.2.5 Install new gaskets conforming to SAE-AMS-C-6183,
Class One, using gasket sealant conforming to MIL-S-45180, new CRES 303 nuts
conforming to MIL-DTL-1222, and new galvanized steel washers conforming to
SAE-1040, for compensating tanks on LHD and LHA Class ships.**

3.12.2.6 Install new bolts conforming to MIL-DTL-1222, Grade
5, Class 316 (CRES), for flush deck bolted manhole covers.

3.12.3 Install access cover for each potable water, feedwater, and
sewage tank, using new gaskets conforming to MIL-PRF-1149, new nuts conforming
to MIL-DTL-1222, Type I, Grade 5, zinc coated, and new CRES washers conforming
to FF-W-92, Type A, Grade One, Class B.

3.12.4 Confirm that all personnel have exited the space prior to
closure of tanks, voids, and cofferdams. Designate one person to account for
all personnel who may have entered the space.

Preliminary - For Review Only

SHIP: _____

3.13 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Location of the Local Naval Fuel Depot receiving off-loaded fuels is available from the SUPERVISOR.

4.2 For the purpose of this Work Item, the term "tank or space" includes voids, cofferdams, and inaccessible or confined areas.

4.3 Consider each bilge to contain contaminated oily salt water.

4.4 Booklet of General Plans and Tank Sounding Tables are available for review at the office of the SUPERVISOR.

4.5 The SUPERVISOR will provide sequence of tanks and dates of inspections referenced in 3.1.1.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 None.

PLANNER'S NOTES:

- (1) Planner insert machinery compartments containing bilges.
- (2) Planner list in 1.2 those tanks/spaces for which the contractor has no other work identified, and which are required to be opened, ventilated, emptied, cleaned, maintained, and closed by contractor in support of inspections by Government personnel.
- (3) Planner insert appropriate revision.
- (4) Planner insert gallonage as authorized at WPIC.
- (5) Planner insert quantities as authorized at WPIC.
- (6) Planner insert applicable Table, Column, Line.

Preliminary - For Review Only

SHIP: _____

ATTACHMENT A

INVENTORY SCHEDULE - PETROLEUM PRODUCTS

[illegible]

SIGNATURES

NFD DIRECTOR

CONTRACTOR/SUBCONTRACTOR AUTHORIZED REPRESENTATIVE

SHIP'S COMMANDING OFFICER'S AUTHORIZED REPRESENTATIVE